WHAT IS CLAIMED IS:

1. A method of parametric design of an instrument panel support structure for an instrument panel in a vehicle comprising:

determining an input parameter, wherein the input parameter is a three dimensional coordinate defining the instrument panel support structure relative to the vehicle;

generating a design of the instrument panel support structure using the input parameter;

determining if the design of the instrument panel support structure meets a predetermined criteria; and

modifying the input parameter if the design of the instrument panel support structure does not meet the predetermined criteria.

2. A method as set forth in claim 1 wherein the input parameter is a three dimensional coordinate for an attachment location of the instrument panel support structure relative to the vehicle.

3. A method as set forth in claim 1 wherein the input parameter is a three dimensional coordinate for positioning a cross car support beam

portion of the instrument panel support structure relative to the vehicle.

4. A method as set forth in claim 1 wherein the input parameter is a three dimensional coordinate for positioning a knee bolster portion of the instrument panel support structure relative to the vehicle.

5. A method as set forth in claim 1 including the step of using a computer-aided engineering analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.

6. A method as set forth in claim 1 including the step of using a computer-aided human factors analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.

7. A method of parametric design of an instrument panel support structure for a vehicle comprising:

selecting a vehicle body structure for the vehicle from a library stored in a memory of a computer system;

orienting an occupant within the vehicle body;

locating a steering column relative to the vehicle body;

determining an input parameter, wherein the input parameter is a three dimensional coordinate defining the instrument panel support structure relative to the vehicle body;

generating a parametric design of the instrument panel support structure using the orientation of the occupant, the location of the steering wheel, and the input parameter;

comparing the parametric design of the instrument panel support structure to a predetermined criteria;

varying an input parameter to meet the predetermined criteria; and

regenerating the parametric design of the instrument panel support structure.

8. A method as set forth in claim 7 wherein said step of selecting an input parameter includes selecting an attachment location for

attaching an upper attachment bracket portion of the instrument panel support structure relative to the vehicle.

9. A method as set forth in claim 7 wherein said step of selecting an input parameter includes selecting an attachment location for securing a center support bracket portion of the instrument panel support structure relative to the vehicle.

10. A method as set forth in claim 7 wherein said step of selecting an input parameter includes selecting an attachment location for securing an outer portion of the instrument panel support structure relative to the vehicle.

11. A method as set forth in claim 7 wherein said step of selecting an input parameter includes defining a centerline location for a center portion of the instrument panel support structure relative to the vehicle.

12. A method as set forth in claim 7 wherein said step of selecting an input parameter includes defining a centerline location for a driver

side portion of the instrument panel support structure relative to the vehicle.

13. A method as set forth in claim 7 wherein said step of selecting an input parameter includes defining a centerline location for a passenger side portion of the instrument panel support structure relative to the vehicle.

14. A method as set forth in claim 7 including the step of using a computer-aided engineering analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.

15. A method as set forth in claim 7 including the step of using a computer-aided human factors analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.

16. A method of parametric design of an ~~instrument panel support structure for an instrument~~ panel in a vehicle comprising:

selecting a vehicle body style for the vehicle from a vehicle library stored in a memory of a computer system;

orienting an occupant within the vehicle body;

orienting a steering column within the vehicle body;

selecting a parameter for locating an instrument panel support structure within the vehicle body;

selecting a parameter for attaching the instrument panel support structure within the vehicle body;

selecting a predetermined condition for the instrument panel support structure within the vehicle body;

generating a parametric design of an instrument panel support structure using the locating parameter, the attaching parameter and the predetermined condition;

packaging an instrument panel component within the parametric design of the instrument panel support structure;

determining if the parametric design of the instrument panel support structure meets a predetermined criteria;

determining if the parametric design of the instrument panel support structure should be changed if the predetermined criteria is not met;

determining if a parameter should be changed if the parametric design of the instrument panel support structure should be changed; and

modifying the parameter if the parameter should be changed.

17. A method as set forth in claim 16 including the step of using a computer-aided engineering analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.

18. A method as set forth in claim 16 including the step of using a computer-aided human factors analytical technique to determine whether the design of the instrument panel support structure meets a predetermined criteria.